

## Unemployment and Psychological Distress in Young People: The Moderating Role of Employment Commitment

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There is growing evidence for an association between unemployment and reduced psychological well-being. Moreover, this relationship appears to be moderated by a number of factors. This article describes a longitudinal study of two cohorts of young people in the first 3 years of their adult working lives. Evidence is presented to show that psychological distress is higher for the unemployed than for the employed and that changes in employment status lead to changes in distress scores. This relationship is shown to be moderated by individuals' commitment to paid employment such that the effect of movement between work and unemployment is greatest for those whose employment commitment is high.

Recent cross-sectional studies have shown a significant positive association of unemployment with reduced psychological well-being. This association has been demonstrated with respect to happiness (Bradburn, 1969), life satisfaction (Campbell, Converse, & Rodgers, 1976), satisfaction with self (Cohn, 1978), anxiety and positive and negative affect (Warr, 1978), negative self-esteem (Warr & Jackson, *in press*), minor psychiatric morbidity (Banks & Jackson, 1982; Stafford, Jackson, & Banks, 1980), and probability of being identified as a psychiatric case (Bebbington, Hurry, Tennant, Sturt, & Wing, 1981). The cross-sectional link between employment status and well-being is especially clear with respect to male workers and those female workers who are themselves principal wage earners. For other groups of women the pattern is more complex, with a number of important moderating variables coming into play (Warr & Parry, 1982).

One factor that has been shown to moderate the relationship between employment status and psychological well-being in both men and women is the dispositional variable that may be referred to as employment commitment. This reflects the degree to which

a person wants to be engaged in paid employment—his or her current commitment to the labor market. Employment commitment may in some settings be viewed as a component of the Calvinist or Protestant work ethic (e.g., Blood, 1969; Weber, 1930; Wollack, Goodale, Wijting, & Smith, 1971), and it is conceptually distinguishable from involvement in one particular job (e.g., Gorn & Kanungo, 1980; Lodahl & Kejner, 1965).

Stafford et al. (1980) described an analysis of covariance in which scores on a six-item measure of employment commitment significantly moderated the association at one point in time between employment status and minor psychiatric morbidity. For those in paid work there was a negative correlation between employment commitment and psychiatric morbidity (higher commitment being associated with fewer symptoms), whereas for unemployed respondents the sign of the correlation was reversed: higher employment commitment was associated with higher rates of psychiatric symptoms. Warr (1978) had previously observed this pattern with Bradburn's (1969) measures of positive and negative affect. In studies of unemployed samples only, Moss and Plewis (1977) recorded a significant correlation between psychological distress and reported "wanting to work" among mothers. In a study of young workers of both sexes, Feather and Davenport (1981) observed that stated need for a job and a single-item measure of negative feelings about

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unemployment were significantly intercorrelated.

The literature to date has thus indicated that in cross-sectional research unemployed people exhibit lower psychological well-being than those currently in jobs, and that the impairment is significantly greater for unemployed people with higher commitment to the labor market. The present article extends these two findings through the conduct of longitudinal as well as cross-sectional research, with repeated measurement of both well-being and employment commitment. Data from two age cohorts of young people are presented in order to examine more systematically than in other studies the moderating role of employment commitment. Measurements have been taken from the first cohort on three occasions across a 2-year period and from the second cohort twice across approximately 16 months. Respondents have on each occasion been classified by their employment status at the time of interview, and cross-sectional and longitudinal analyses of psychological distress and employment commitment have been conducted within that classification.

Three principal themes will be addressed. The first is in terms of the earlier cross-sectional finding that employment commitment moderates the association between being unemployed and exhibiting lower psychological well-being. We will examine the consistency of this finding on each of the five measurement occasions. The basic analysis will be an examination of the correlations between measures of employment commitment and psychological distress separately for employed and unemployed subsamples. We expect a positive correlation between the two variables for unemployed people and a negative correlation for employed respondents. Analysis of covariance will be used to test the statistical significance of differences between observed relationships for the two subsamples on each occasion.

The second theme concerns changes between measurement occasions. If unemployment is causally implicated in lowered psychological well-being, it should be observed that movement from employment into unemployment is associated with an increase in distress and that the reverse transition is

associated with reduced stress. Evidence about changes of this kind is at present limited (Dooley & Catalano, 1980; Warr, 1983). Cobb and Kasl (1977) have described a follow-up investigation of two factory closures in which a battery of measures was administered on six occasions. Results were complex but did indicate a significantly different pattern of change scores between those respondents moving into new jobs and those becoming unemployed, with respect to five variables: depression, low self-esteem, anxiety-tension, anger-irritation, and suspicion (their Table 4.12). Cohn (1978) reported findings from the application of a single-item measure of satisfaction with self in a national panel survey, observing a significant differential effect between those employees moving into jobs elsewhere compared to those becoming unemployed.

The present investigation permits longitudinal examination between three interview points for one cohort and between two interview points for the second cohort. We will examine changes in distress across each period with respect to four subsamples. If the causal interpretation is to be supported, the two subgroups who remain employed or remain unemployed on different occasions should exhibit no differences in distress scores, whereas the subsamples moving from unemployment to unemployment or from unemployment to employment should show increases and decreases, respectively. (An alternative interpretation of the latter result is that people moving between employment and unemployment first change their distress scores and as a result change their employment status; this seems improbable for the large majority of cases.) Within the longitudinal comparisons of this study we will also examine employment commitment. This has been viewed as a stable personality characteristic and should therefore remain unresponsive to variations in employment status, at least in the relatively short term (Alfano, 1973).

Such stability in employment commitment scores is important in terms of the study's third theme. This brings together the moderating role of commitment in cross-sectional comparisons (Theme 1) and changes in distress associated with transitions be-

tween employment and unemployment (Theme 2). Consider a subsample of respondents who are unemployed at Time 1 and employed at Time 2. Our first theme suggests that a positive correlation between their distress and employment commitment scores should be observed at Time 1 when the respondents are unemployed. But at Time 2 (when the respondents are employed) the same argument predicts a negative relationship for this same subgroup. This leads us to expect differing relationships between employment commitment and the distress change score for groups with differing patterns of labor market experience.

Underlying such an expectation is the argument (deriving from Theme 1) that those people whose employment commitment is high are likely to be most affected by changes in employment status: while their commitment score remains high across the interval (Theme 2), their distress score is likely to be substantially affected by a change in employment status. Thus, we expect those with high employment commitment to show a larger increase in distress with movement from employment to unemployment and to show a larger reduction with the reverse transition. Such a pattern across time would be particularly powerful evidence for the moderating role of commitment in determining the impact of unemployment.

The aims of this study may be summarized as follows. (a) to replicate the previously observed cross-sectional interaction between employment commitment and employment status in affecting psychological distress; (b) to test the hypothesis that change in employment status is associated with change in psychological distress and that no change occurs for those whose employment status is the same at successive interviews; and (c) to examine the moderating role of employment commitment in the relationship between change in employment status and change in distress.

## Method

### *Sample and Procedure*

Data were obtained from two age cohorts of lower qualified 16-year-olds leaving school in a large northern city in England. Young people are permitted to leave

school either at Easter or in summer at the end of the school term in which they become 16 years old. Those who leave at Easter do not take any external examinations, whereas those who leave in the summer may take either Certificate of Secondary Education (CSE) examinations or General Certificate in Education (GCE) Ordinary level (O level) examinations. A Grade 1 pass at CSE is equivalent to a GCE pass at O level. The educational qualification criterion taken as defining the population of interest was here less than two O levels or CSE equivalents. Roughly half of all 16-year-olds leaving school in England fall below this cut-off point (Department of Education and Science, 1979).

Subjects were students who had left one of 12 schools sampled in 1978 or one of 11 of these schools sampled again in 1979. Equal numbers of males and females were chosen, and the schools were selected in order to provide substantial numbers of ethnic minority group members (mainly of Caribbean, Indian, and Pakistani descent). Home addresses were obtained from schools for all eligible nonwhite individuals and 30% of eligible whites.

Members of the 1978 "leaver" cohort were interviewed three times after they left school. The first round of interviews took place between November 1978 and April 1979, approximately 7 months after school leaving. Interviews were conducted with 647 individuals out of a sample list of 860. The largest group of nonrespondents (177) consisted of those who could not be contacted either because their address was untraceable or because they no longer lived at the address given by the school. The contact rate at first interview was therefore 80%. Of those contacted, 5% (36 out of 683) refused to be interviewed. There was no evidence for sex or ethnic differences in contact rate or refusal rate.

The second interview with this cohort took place between April and December 1979, about 15 months after school leaving. The follow-up response rate was 84% from the first interview. The third interview was conducted between December 1980 and March 1981, some 2½ years after school leaving, and a follow-up response rate of 76% from the second interview was achieved. Little change in the structure of the cohort was observed throughout the study. The ratio of white females to white males decreased slightly at the final interview, and the mean educational qualification level increased slightly between the first and the last interviews.

Members of the 1979 leaver cohort were interviewed twice after leaving school, at approximately 8 months and 2 years. Initial contact was made with 1,096 respondents before they left school, and the first postschool interviews were carried out between January and October 1980 with 780 individuals, a response rate of 71%. As with the first cohort, most of the nonresponders were noncontacts rather than refusals. At the second interview, between November 1980 and June 1981, a follow-up response rate of 64% was achieved. This was lower than elsewhere in the study, in part because funding for interviews ceased so that attempts to make contact had to be terminated. Further details of the sampling procedure and response rates are reported in Banks and Jackson (1982).

Interviewing was undertaken by a team of nine full-time interviewers. Each interview took place at the respondent's home and all interviews with a respondent were conducted by the same interviewer. At each inter-

view a diary sheet was completed listing each status transition in the prior period, and information about each job and each period of unemployment or full-time further education was obtained. Among the measures administered in the interview on each occasion were a 12-item index of psychological distress and a 6-item index of employment commitment

Measures

*Psychological distress* The measure of distress was a standardized screening instrument devised for assessing through self-report the probability of minor psychiatric disorder. This was the General Health Questionnaire (GHQ), a measure which has high reliability and validity in community investigations (e.g., Banks, 1983; Goldberg, 1972, 1981; Henderson, Duncan-Jones, Byrne, Scott, & Adcock, 1979). The 12-item version of the GHQ was employed; this has been shown to be acceptable and useful in occupational research (Banks et al., 1980).

Items, response alternatives, and scoring weights are given in the Appendix. Total scores were calculated for each respondent, with a possible range between 0 and 36. Summary statistics and alpha coefficients of internal consistency are shown for each measurement occasion in Table 1. Principal components analysis of each set of items separately gave no indication of more than a single

interpretable factor. There was a consistent tendency for women to score more highly than men, which was statistically significant ( $p < .01$ ) for the first cohort on the first and second measurement occasion and for the second cohort on the second occasion. Since data analyses in relation to this article's aims are all within subject, these intergroup differences may be discounted in the present study.

*Employment commitment* The scale described by Warr, Cook, and Wall (1979) provided the basis for the index of employment commitment. Slight rewording of the items was undertaken to assist comprehension by the present respondents of low educational attainment, and separate forms were prepared for those employed and unemployed at the time of interview. Mean scores were taken across the items (which are presented in the Appendix), so that the possible range is between 1 and 5. Summary statistics and alpha coefficients for each measurement occasion are shown in Table 1. Note that the mean values are very high and standard deviations are low. Such restriction of range will reduce observed correlations with other variables and also contribute to lower alpha coefficients than in the distress measure. (Despite this, the alpha coefficients between .64 and .71 are slightly higher than those reported by Warr et al., 1979.) No sex differences were present in employment commitment scores.

*Employment status* Respondents were classified as either employed or unemployed at the time of each interview. Employed respondents were full-time employees and a very small number of part-time workers, as well as those members of each cohort currently taking part in the national Youth Opportunities Programme. This program involves a set of provisions for unemployed young people under 18 years of age, who take part in training and work experience schemes lasting from 2 weeks to 1 year. On each interview occasion some 10% of the present samples were on Youth Opportunities Programme schemes, and separate analyses have indicated that their psychological distress scores were very similar to those of otherwise employed respondents (Stafford, 1982). A further 10% of the full sample were attending college full time on each occasion, and these respondents have been omitted from the analyses presented here.

Table 1  
Summary Statistics for Variables on Each Measurement Occasion

Variable	Measurement occasion		
	First	Second	Third
First cohort 1978 leavers			
Psychological distress			
<i>M</i>	9.41	9.06	9.44
<i>SD</i>	5.56	5.29	5.10
<i>n</i>	647	545	413
<i>α</i>	.82	.84	.85
Employment commitment			
<i>M</i>	4.58	4.64	4.70
<i>SD</i>	.59	.52	.48
<i>n</i>	647	545	417
<i>α</i>	.71	.67	.71
Second cohort 1979 leavers			
Psychological distress			
<i>M</i>	8.85	8.70	
<i>SD</i>	5.17	5.22	
<i>n</i>	779	496	
<i>α</i>	.83	.87	
Employment commitment			
<i>M</i>	4.69	4.70	
<i>SD</i>	.49	.48	
<i>n</i>	780	496	
<i>α</i>	.64	.67	

Analysis of Change Scores

The central concern of this article is change in psychological distress as a function of change in employment status. Such change needs to be viewed against the pattern of temporal variation in distress in the absence of a change in employment status. Of course, we cannot say that the groups of individuals employed on both occasions or unemployed on both occasions are in all respects equivalent to the groups of individuals who changed in status. This would only be true if employment and unemployment were allocated to individuals at random. However, both the power of significance testing and the precision of inferences can be increased by including in the analysis both types of individuals.

It is clear from the large literature on techniques for analyzing change scores that there is no single procedure that is universally the most appropriate. Recent reviews

by Anderson et al (1980) and Rogosa, Brandt, and Zimowski (1982) have discussed a number of different strategies, and several sources of difficulty have been considered. Among them are the problems of measurement error and of linear adjustment, which take account of differences in initial status.

Because most measures in psychological research are fallible and difference scores are derived from two measures, each of which contains measurement error, it may be thought that difference scores are more unreliable than either of their components. This is sometimes taken as an argument against the use of difference scores in any circumstances. However, Rogosa et al (1982) have refuted this position on two grounds. First, they show that a raw difference score is an unbiased estimate of true change given that errors are random. As a result, the difference score is a natural estimator of individual change. Second, they show that difference scores are not intrinsically unreliable, the reliability of a difference score depends both on the amount of measurement error and on the extent of individual differences in true change.

Several methods of analysis of difference scores have been suggested. The simplest of these, the use of raw difference scores is equivalent to repeated measures analysis of variance (ANOVA) and is unsatisfactory in that it becomes difficult to disentangle true change effects from simple regression to separate group means. It is important, therefore, to use a method of analysis that makes some kind of linear adjustment to the difference score in order to take account of differences in initial status.

Several authors (e.g., Reichardt, 1979) have argued that the best way to achieve this adjustment is to treat the initial score as simply another predictor variable in a regression equation. For the present data the change score is used as the dependent variable and the initial distress score as the covariate. Here, the linear adjustment is a function of the regression coefficient of the Time 2 score on the Time 1 score. It is important to note that the same results are obtained in regression analysis for either the Time 2 score or the change score, provided that the Time 1 score is included in the list of predictors. The interpretation of the model coefficients obviously depends on the parameterization, but indices of goodness of fit are identical. Consequently, the choice of whether to use the change score or the Time 2 score depends only on convenience.

The method of analysis employed in this article may be summarized as follows. The distress change score is used as the dependent variable in tests of our hypotheses, but in each case the initial distress score is always present in the regression equation at each step. This means that our estimator of individuals' true change is the adjusted difference score.

## Results

### *Cross-Sectional Analyses*

Table 2 contains findings relevant to our first theme. Pearson product-moment correlations are reported between employment commitment and psychological distress for the two employment status groups separately

on each of the measurement occasions. A clear pattern emerges, confirming the results described earlier. On each occasion the two variables are negatively correlated for the employed respondents and positively correlated for those who are unemployed. The later measurement occasions do not constitute independent replications of the first set of findings, because many respondents in each cohort remained in the same employment status category on consecutive occasions. However, the two cohorts are themselves completely independent, and Table 2 shows that the same pattern is present in both sets of findings.

An appropriate test of the significance of the difference between employed and unemployed respondents in the relationship between commitment and distress is given by analysis of covariance (Johnston, 1972). This involves a series of regression analyses. The first step is to regress psychological distress on employment commitment and employment status for the total sample, thus forcing a common slope parameter for both status groups. The second step relaxes this constraint by fitting separate regression equations for each group. Comparing the variance in distress accounted for at the second step with that accounted for at the first step gives the required test. This is formally equivalent to moderated regression analysis using a binary coded dummy variable for employment status and its multiplicative interaction with employment commitment. Analyses were performed separately for all measurement occasions and in all five instances were highly significant (see Table 2); the product term contributed between 2% and 4% of the variance in psychological distress. Thus, we may conclude that the employed and unemployed respondents show reliable differences in the form of the relationship between employment commitment and psychological distress: commitment to the labor market significantly moderates the relationship between employment status and psychological distress.

### *Longitudinal Analyses: Mean Scores*

Our second theme concerns the effects of change in employment status on commit-

Table 2  
*Correlations Between Employment Commitment and Psychological Distress According to Employment Status on Each Occasion*

Employment status	Measurement occasion					
	First		Second		Third	
	<i>n</i>	<i>r</i>	<i>n</i>	<i>r</i>	<i>n</i>	<i>r</i>
First cohort 1978 leavers						
Employed	482	- 16	413	- 18	305	- 22
Unemployed	81	28	68	34	89	17
	<i>F</i> (1, 559) = 20.53*		<i>F</i> (1, 489) = 18.77*		<i>F</i> (1, 390) = 16.29*	
Second cohort 1979 leavers						
Employed	636	- 14	371	- 22		
Unemployed	82	16	95	17		
	<i>F</i> (1, 776) = 11.71*		<i>F</i> (1, 462) = 14.70*			

\* $p < .001$

ment and distress. The earlier discussion suggested that employment commitment scores should remain stable and unresponsive to changes in status, whereas a causal impact of unemployment should be revealed in a significant pattern of changes in distress. Data bearing on these possibilities are presented in Table 3. For each temporal comparison four subgroups were defined according to employment status at each time, namely U-E, E-E, U-U, and E-U. U-E denotes unemployed (U) at the earlier occasion and employed (E) at the later occasion, and so forth. Means and standard deviations of the two variables for the four subgroups at each occasion are given in Table 3.

Strong inference about the causal influence of employment status on psychological distress depends on there being no difference in the initial distress scores for individuals with the same employment status at the first interview but different employment status at the second interview. In other words the distress scores of the U-E and U-U groups in Table 3 should not differ significantly on the first measurement occasion of each comparison; nor should the distress scores of the E-U and E-E groups. If no differences are found, then we may be confident that changes

in the distress scores are the result of changes in employment status rather than simple regression to disparate subgroup means. For three out of the four comparisons in Table 3, ANOVA showed there to be no significant differences; however, the distress scores of the two subgroups of employed respondents in the first cohort at Time 1 were significantly different ( $p < .01$ ). No significant differences at the first measurement occasion in each sequential comparison were found for employment commitment.

Table 3 indicates that, in general, changes in employment commitment scores between interviews were small. However, large changes were consistently observed with respect to psychological distress, with U-E subgroups showing a substantial decline in each case and E-U subgroups showing large increases. The E-E and U-U subgroups revealed very similar scores on each pair of occasions; the U-U distress scores were considerably higher than the E-E scores on each occasion. This pattern of results was consistent across all the temporal comparisons in Table 3.

In order to test the statistical significance of each overall distribution, commitment and distress scores at each pair of interview occasions were used to calculate change scores

Table 3

*Means and Standard Deviations for Employment Commitment and Psychological Distress According to Employment Status at Pairs of Time Periods*

Employment status	<i>n</i>	Employment commitment				Psychological distress			
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
First cohort Time 1 and Time 2									
		Time 1		Time 2		Time 1		Time 2	
U-E	30	4.43	70	4.46	61	15.13	7.47	9.30	6.19
E-E	369	4.65	51	4.70	46	8.55	4.72	8.27	4.66
U-U	30	4.22	93	4.16	81	12.67	5.29	12.29	5.48
E-U	27	4.32	82	4.51	70	11.56	7.02	14.67	7.74
<i>F</i> (1, 452) = 2.32, <i>ns</i>					<i>F</i> (1, 452) = 23.81, <i>p</i> < .001				
First cohort Time 2 and Time 3									
		Time 2		Time 3		Time 2		Time 3	
U-E	19	4.49	66	4.68	35	15.21	7.60	11.24	6.34
E-E	273	4.70	48	4.78	36	7.95	4.56	8.03	3.73
U-U	21	4.39	77	4.13	105	14.14	6.97	14.43	5.47
E-U	58	4.67	45	4.58	51	9.52	5.15	14.41	6.37
<i>F</i> (1, 367) = 9.20, <i>p</i> < .01					<i>F</i> (1, 367) = 17.06, <i>p</i> < .001				
First cohort Time 1 and Time 3									
		Time 1		Time 3		Time 1		Time 3	
U-E	18	4.30	91	4.80	28	13.28	6.64	7.67	3.50
E-E	259	4.64	50	4.77	36	8.70	5.03	8.34	3.82
U-U	20	4.64	59	4.49	82	15.70	6.16	16.45	6.04
E-U	56	4.62	60	4.39	72	9.36	5.16	13.09	5.85
<i>F</i> (1, 349) = 12, <i>ns</i>					<i>F</i> (1, 349) = 15.12, <i>p</i> < .001				
Second cohort Time 1 and Time 2									
		Time 1		Time 2		Time 1		Time 2	
U-E	19	4.68	43	4.66	57	13.68	5.76	8.42	4.86
E-E	335	4.71	45	4.76	40	8.04	4.50	7.62	4.50
U-U	31	4.68	49	4.59	60	12.71	7.30	12.46	6.56
E-U	60	4.73	37	4.55	47	9.05	5.94	13.03	6.00
<i>F</i> (1, 441) = 3.12, <i>ns</i>					<i>F</i> (1, 441) = 25.61, <i>p</i> < .001				

Note: U-E denotes unemployed (U) at the earlier occasion and employed (E) at the later occasion, and so forth.

for each subgroup, and two-way ANOVAs were performed using the change scores as dependent variables. The first factor in these analyses was employment status at the first of a pair of interviews, and the second factor reflected whether or not a respondent had changed status at the second interview of the pair. For the measure of psychological distress, we expected a positive change score for the initially unemployed who move to employment and a negative change score for the

initially employed who move to unemployment, together with zero change for those individuals whose status remains the same. For employment commitment on the other hand, we did not expect any systematic pattern in change scores as a result of employment status changes. These predictions may be tested appropriately by the interaction term in the ANOVA, the  $F$  ratios for these terms are also shown in Table 3. It can be seen that the interaction term is very significant in all four

comparisons involving psychological distress. However, only one of the four comparisons of employment commitment reaches significance, showing slight falls in commitment for those who became unemployed and slight increases for those who gained employment.

#### *Longitudinal Analyses: Correlations Between Employment Commitment and Distress Change Scores*

The cross-sectional finding that employment commitment amplifies or reduces the impact of unemployment on psychological distress may be extended into a longitudinal study as follows. Larger changes in distress scores were expected for those individuals whose employment status changed and whose commitment is high than for those whose commitment is low. A statistical test of this interpretation is given by an extension of the analysis of covariance reported above for each measurement occasion separately, this time the psychological distress change score was used as the dependent variable.

Table 4 shows the results of separate regression analyses for each of the four subgroups defined, as before, by present and prior status, including prior psychological distress score as a covariate. ANOVA results for testing parallelism of the subgroup regression slopes are also reported in Table 4. Two of the four comparisons are highly significant whereas the other two approach conventional significance criteria. Additional tests showed that the sole contributor to nonparallelism in each case was current employment status.

The sign of regression coefficients for each subgroup indicates (in comparison with low-commitment respondents) a larger increase in psychological distress for high-commitment people who become unemployed (the E-U subgroup) and a larger decrease in psychological distress for high-commitment respondents who become employed (the U-E subgroup). The small size of many of the subgroups involved in these tests means that great reliance cannot be placed on the values of individual coefficients, but nonetheless the pattern of findings is consistent across all the separate comparisons for both cohorts.

#### Discussion

The results presented in this article have been derived from a total of five interviews with two separate cohorts of young workers. The consistency of results permits confidence about the reliability of their overall pattern. Three important findings have emerged. First, personal employment commitment has been shown significantly to moderate the relationship between employment status and psychological distress assessed through an inventory of known validity. Second, it has been demonstrated that transitions from employment to unemployment and vice versa are followed by changes in distress levels. Third, the effect of change in employment status on levels of distress has been shown to be a function of employment commitment, such that those with high commitment showed greater change in distress scores as a result of change in employment status.

Table 4  
*Partial Correlations Between Employment Commitment and Distress Change Scores With Initial Distress Score Held Constant*

Employment status	First cohort Times 1 and 2		First cohort Times 1 and 3		First cohort Times 2 and 3		Second cohort Times 1 and 2	
	<i>n</i>	<i>r</i>	<i>n</i>	<i>r</i>	<i>n</i>	<i>r</i>	<i>n</i>	<i>r</i>
U-E	30	-.18	19	-.64	18	-.50	19	-.05
E-E	369	-.11	273	-.22	259	-.15	355	-.16
U-U	30	.25	21	.29	20	.08	31	.19
E-U	27	.25	57	.12	56	.15	60	.05
	$F(4, 451) = 2.21,$ $p < .10$		$F(4, 347) = 4.22,$ $p < .005$		$F(4, 360) = 3.60,$ $p < .01$		$F(4, 432) = 2.35,$ $p < .06$	

Note: U-E denotes unemployed (U) at the earlier occasion and employed (E) at the later occasion, and so forth.



The strength of these findings arises in part from the tests conducted separately for each comparison and partly from the consistency in the pattern of the results, not only with repeated measurement of the same individuals but also for two separate cohorts of young people. This consistency in the results is particularly impressive given that the individuals being studied are beginning their adult working lives and are therefore subject to many changes in their personal and social environment. During the time span of the study, many young people left their parental homes and became financially independent, some married or became pregnant, and others took on responsibilities for dependent relatives. Because many of these experiences are known to affect mental health, it is an important finding that employment commitment and employment status operate jointly to affect distress.

The total number of unemployed respondents varied from 68 at the second interview with the first cohort to 95 at the second interview with the second cohort (see Table 2). These small samples mean that further subgrouping, as in Tables 3 and 4, in order to test refinements of our basic hypothesis is made difficult. The present findings are promising but now require replication in studies of larger numbers of individuals undergoing changes in employment status.

The longitudinal evidence presented here is particularly important in a field characterized mainly by cross-sectional research. The changes in distress scores associated with changes in employment status are of major interest, but the stability of scores for those respondents employed or unemployed on two successive interview occasions should also be noted. Continued employment (in the E-E groups of Table 3) appears to result in no gain in psychological well-being, and continued unemployment (in the U-U groups) appears to lead to little additional distress. However, those interpretations are not fully justified by the figures presented. The present analyses are solely in terms of employment status at each interview, and it is not necessarily the case that those who were unemployed at successive interviews were also continuously unemployed in the intervening period. Investigations of the continuing effects

of unemployment require a different design from that employed here.

Several features of the distress scores in Table 3 are suggestive of causal processes that deserve further study. For example, those people employed on both interview occasions (the E-E respondents) tend to have lower distress scores at the earlier interview than do those who subsequently become unemployed (E-U). This may be due to anticipation of job loss causing higher distress scores among the latter group or may arise because distress while employed causes a person to be laid off. Among the U-U and U-E groups there is a tendency for those remaining unemployed (U-U) to have lower distress scores on initial interview; this may arise from their lower employment commitment, which in turn reduces their probability of finding a job. These patterns are, however, generally non-significant, apart from the Time 1 difference in distress scores between E-E and E-U subgroups in the first cohort (which may in part be a function of the large size of the E-E group).

The finding that employment commitment significantly moderates unemployed people's psychological distress in longitudinal as well as cross-sectional comparisons is of particular importance. For example, it implies that comparisons between different samples should only be made with caution. If employment commitment varies between two groups of unemployed people, then distress scores are not expected to be similar. This point is, for instance, central to a comprehensive understanding of women's well-being in relation to their employment status (Warr & Parry, 1982). Counseling interventions to help unemployed people who have particularly high distress scores should focus upon their commitment to paid work, perhaps attempting to alter the relative personal salience of occupational and nonoccupational aspirations. In addition, research is required into the dimensions of employment commitment and the factors affecting its strength.

The present data are also of wide-ranging theoretical significance in charting the interactive influence of environment and personality upon reactions and behaviors (e.g., Magnusson & Endler, 1977; Nygård, 1981; Payne,

Fineman, & Jackson, 1982). Understanding the process of person-situation interaction is likely to require greater attention to concepts such as commitment, involvement, and attachment.

Behaviors and attitudes of many kinds, as well as more general psychological well-being, are determined by levels of personal commitment. The present evidence for the importance of employment commitment as a mediator of well-being among unemployed people may thus be viewed as one instance of a more general theme.

Finally, this study has emphasized that advances in understanding the experience of unemployment require consideration of both the nature of unemployment in general and the characteristics of particular unemployed people. One important personal moderator variable has been identified here, the dispositional characteristic of employment commitment. Other features that may have an impact on the experience of unemployment include a person's activity level, social support, other recent negative life events, socio-economic status, financial resources, and personal vulnerability to stress. The single and combined effects of these potential moderators now require sustained attention.

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## Appendix

Table A1  
*Psychological Distress Measure*

In the last few weeks have you	
1 been able to concentrate on whatever you're doing?	7 been able to enjoy your normal day-to-day activities?
2 lost much sleep over worry?	8 been able to face up to your problems?
3 felt that you're playing a useful part in things?	9 been feeling unhappy and depressed?
4 felt capable of making decisions about things?	10 been losing confidence in yourself?
5 felt constantly under strain?	11 been thinking of yourself as a worthless person?
6 felt that you couldn't overcome your difficulties?	12 been feeling reasonably happy all things considered?

*Note* Response alternatives were as follows Item 1 better than usual, same as usual, less than usual, much less than usual Items 2, 5, 6, 9, 10, and 11 not at all, no more than usual, rather more than usual, much more than usual Items 3, 4, 7, 8, 12 more so than usual, same as usual, less so than usual, much less than usual Scoring weights were 0, 1, 2, and 3, respectively, in each case

Table A2  
*Scale of Employment Commitment*

For employed respondents	For unemployed respondents
1 If I was out of work I wouldn't feel right	I don't feel right when I'm out of work
2 Having a job is important to me	Getting a job is important to me
3 Work makes me feel I'm doing something with my life	Work will make me feel I'm doing something with my life
4 I'd still want to work even if I could get more money on social security	If I could get more money on social security than by working I'd still want to work
5 I wouldn't like being out of work	I don't like being out of work
6 I would soon get bored if I had no work to do	I get bored with no work to do

*Note* Response alternatives were as follows agree a lot, agree a little, not sure, disagree a little, disagree a lot Scoring weights were 5, 4, 3, 2, and 1, respectively

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